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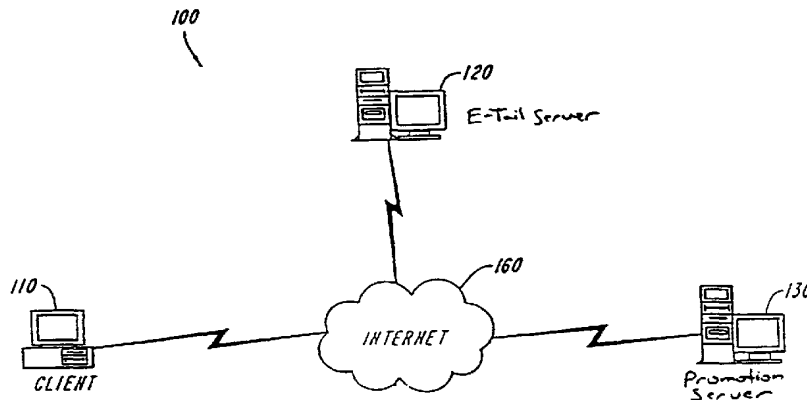
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(54) Title: METHOD OF AND SYSTEM FOR DISTRIBUTING AND/OR MODIFYING ELECTRONIC COUPONS OVER A NETWORK



(57) Abstract: A system for distributing and/or modifying electronic coupons over a communications network includes an e-tail server (120) system having a computer processor and associated memory, the e-tail server (120) system including items for sale, a promotion server (130) system having a computer processor and associated memory, the promotion server system (130) including a database containing electronic coupon distribution/modification rules and promotional data that defines electronic coupons, and a client system having a computer processor and associated memory. The client system (110) is selectively coupleable to the e-tail server system (120) over the communications network to initiate a purchase transaction and includes at least one electronic token representative of purchase/redemption information, the electronic token being transmitted thereto by the e-tail server system (120) is adapted for reading the electronic token from the client system (110) and providing, to the promotion server system (130), access to the purchase/redemption information and, after the consummation of the purchase transaction, distributing/modifying electronic coupons based on the application of the electronic coupon distribution/modification rules to the purchase/redemption information.



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METHOD OF AND SYSTEM FOR DISTRIBUTING AND/OR MODIFYING ELECTRONIC COUPONS OVER A NETWORK

CROSS REFERENCE TO RELATED APPLICATION

This application is a continuation of U.S. application Serial No. 09/596,812, filed June 19, 2000, the disclosure of which is hereby incorporated by reference into this application.

FIELD OF THE INVENTION

This invention relates to a method of and system for distributing and/or modifying electronic coupons over a network and more particularly to a method of and system for applying a set of rules to a client's purchasing/redemption history and electronic coupon redemption history and distributing and/or modifying electronic coupons, based on the application of the rules, after the consummation of the purchase transaction.

BACKGROUND OF THE INVENTION

In order to increase the number of new customers who buy a particular product, many retail outlets, and grocery stores in particular, set up a database of certain items that it sells and links each of these primary items to one or more secondary items that are different from the item to which they are linked for the purpose of promoting the secondary item. As a customer is checking out and each item is scanned at the checkout, the items are monitored and simultaneously compared to the items in the database to determine whether any of the items are associated with a secondary item. If an item is associated with a secondary item, a coupon for the secondary item is printed out for the customer to use at a later date.

This system enables the store to provide to a customer, who may not normally purchase the secondary item, an incentive for purchasing the secondary item, simply because the customer purchased the primary item that was linked to the secondary item. The system thus potentially creates a new customer for the secondary item.

While this system is in use in the so-called "brick and mortar" outlets, there is no such system which enables an online retail store to provide coupons to customers for items in this manner. Furthermore, in the above-described system, there is no way for the retail outlets to provide coupons to customers based on purchases that the customer has made in the past.

## SUMMARY OF THE INVENTION

Accordingly, it is an object of this invention to provide a method of and system for distributing and/or modifying electronic coupons over a network, in which the electronic coupons are distributed and/or modified based on the purchasing/redemption history of the customer and after the consummation of the purchase transaction, so that the coupons can be redeemed at a later date.

The invention is directed to a method of and system for distributing and/or modifying electronic coupons over a network in which the electronic coupons may be redeemed at a later date. The electronic coupons are distributed and/or modified based on the application of coupon distribution rules to the client's purchasing/redemption history. An e-tail server system includes a plurality of items for sale and has access to a promotional server system that includes a database of rules that determine the distribution and/or modification of electronic coupons. A client accesses the e-tail server system to initiate a purchase transaction. After the client system consummates the purchase transaction by purchasing an item and transmitting payment information to the e-tail server system, the e-tail server system reads electronic purchase/redemption information tokens stored on the client system by e-tail servers during previous purchase transactions. The e-tail server system provides access to purchase and redemption information represented by the tokens to the promotion server system, which applies the distribution/modification rules to the information. The rules are defined by the issuer of the electronic coupons for promotional items, which in most cases is the manufacturer of the promotional items, the supplier of the promotional items and/or the e-tail server system. If the rules applied by the promotional server warrant the distribution/modification of electronic coupons, the electronic coupons are distributed/modified by the promotion server system.

According to one aspect of the invention, a system for distributing electronic coupons over a communications network includes an e-tail server system having a computer processor and associated memory, the e-tail server system including items for sale, a promotion server system having a computer processor and associated memory, the promotion server system including a database containing electronic coupon distribution rules and promotional data that defines electronic coupons, and a client system having a computer processor and associated memory. The client system is selectively coupleable to the e-tail server system over the communications network to initiate a purchase transaction and includes at least one electronic purchase/redemption information token representative of purchase/redemption information, the electronic purchase/redemption information token being transmitted thereto by the e-tail server system. The e-tail server system is adapted for reading the electronic purchase/redemption information token from the client system and providing, to the promotion server system, access to the purchase/redemption information. The promotion server system is adapted for applying the electronic coupon distribution rules to the purchase/redemption information and, after the purchase transaction is consummated, distributing electronic coupons to the client system based on the application of the electronic coupon distribution rules to the purchase/redemption information. The purchase/redemption information may include one or more of information about items purchased by the client system and information about electronic coupons redeemed by the client system. The electronic coupon distribution rules may be conditional rules that authorize the distribution of the electronic coupons based on the purchase/redemption information. The purchase/redemption information may be stored in the memory of the client system. The purchase/redemption information may be stored on the e-tail server system, and the electronic purchase/redemption information token may point the e-tail server system to the purchase/redemption information thereon. The purchase/redemption information may be stored on the promotion server system, and the electronic token may point the promotion server system to the purchase/redemption information thereon. The electronic coupons may be provided to the client system in the form of screen display data that is transmitted to the client system directly from the promotion server system over the communications network. The electronic coupons may be provided to the

client system in the form of screen display data that is transmitted from the promotional server system to the e-tail server system over the communications network, and from the e-tail server system to the client system over the communications network. The client system may be connected to the network by a wired or wireless connection and may be a personal computer, an interactive television system, a personal digital assistant or a cellular telephone. The promotion server system may be included in the e-tail server system. The promotion server system may distribute the electronic coupons to the client system after the purchase transaction is consummated.

According to another embodiment of the invention, a method of distributing electronic coupons over a communications network includes the steps of establishing a connection between a client system and an e-tail server system, the client system including at least one electronic token representative of purchase/redemption information, the at least one electronic token being transmitted thereto by the e-tail server system. The e-tail server system reads the at least one electronic token from the client system and provides, to a promotion server system, access to the purchase/redemption information represented by the at least one electronic token. The promotion server system includes a database containing electronic coupon distribution rules and promotional data that defines electronic coupons. The promotion server system applies the electronic coupon distribution rules to the purchase/redemption information and distributes electronic coupons to the client system based on the application of the electronic coupon distribution rules to the purchase/redemption information.

According to yet another embodiment of the invention, a system for distributing electronic coupons over a communications network includes a first e-tail server system having a computer processor and associated memory, the first e-tail server system including items for sale, a promotion server system having a computer processor and associated memory, the promotion server system including a database containing electronic coupon distribution rules and promotional data that defines electronic coupons, and a client system having a computer processor and associated memory. The client system is selectively coupleable to the first e-tail server system over the communications network to initiate a purchase transaction and includes at least one electronic token representative of purchase/redemption information, the electronic

token being transmitted thereto by a second e-tail server system. The first e-tail server system is adapted for reading the electronic token from the client system and providing, to the promotion server system, access to the purchase/redemption information. The promotion server system is adapted for applying the electronic coupon distribution rules to the purchase/redemption information and, after the purchase transaction is consummated, distributing electronic coupons to the client system based on the application of the electronic coupon distribution rules to the purchase/redemption information.

According to yet another embodiment of the invention, a system for modifying electronic coupons over a communications network includes an e-tail server system having a computer processor and associated memory, the e-tail server system including items for sale, a promotion server system having a computer processor and associated memory, the promotion server system including a database containing electronic coupon modification rules and promotional data that defines electronic coupons and a client system having a computer processor and associated memory, the client system being selectively coupleable to the e-tail server system over the communications network to initiate a purchase transaction and including at least one electronic coupon and at least one electronic token representative of purchase/redemption information, the electronic token being transmitted thereto by the e-tail server system. The e-tail server system is adapted for reading the electronic token from the client system and providing, to the promotion server system, access to the purchase/redemption information and the promotion server system is adapted for applying the electronic coupon modification rules to the purchase/redemption information and modifying the at least one electronic coupon on the client system based on the application of the electronic coupon modification rules to the purchase/redemption information.

## BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other objects of this invention, the various features thereof, as well as the invention itself may be more fully understood from the following description when read together with the accompanying drawings in which:

FIG. 1 is a diagrammatic view of a system for distributing electronic coupons in accordance with the present invention;

FIG. 2 is a flow diagram of a method of distributing electronic coupons in accordance with the present invention;

FIG. 3 is a more detailed diagrammatic view of the system of FIG. 1;

FIG. 4 is a diagrammatic view of another embodiment of the system for distributing electronic coupons in accordance with the present invention;

FIG. 5 is a diagrammatic view of yet another embodiment of the system for distributing electronic coupons in accordance with the present invention; and

FIG. 6 is a flow diagram of a method of modifying electronic coupons in accordance with the present invention.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention is directed to a method of and system for distributing and/or modifying electronic coupons over a network. An electronic coupon is essentially a token, issued by or under the authority of the issuer for the benefit of the recipient. Typically, the recipient receives the electronic coupon and subsequently redeems it for the prescribed benefit at some later point in time. Preferably, the electronic coupon enables or modifies an anticipated transaction such as by providing a discount in the price of goods or services provided by the issuer or the issuer's agent. According to the invention, the distribution and/or modification of the electronic coupons is determined by the application of electronic coupon distribution/modification rules to information regarding the client system's recent purchase/redemption transactions.

FIG. 1 shows a diagram of a system 100 for distributing/modifying electronic coupons in accordance with a preferred embodiment of the present invention. The system 100 includes client system 110, server system 120 and server system 130, all



connected to a common communications network 160. Preferably, the client system 110, server system 120 and server system 130 can each be a personal computer such as an IBM PC or IBM PC compatible system or an APPLE® MacINTOSH® system or a more advanced computer system such as an Alpha-based computer system available from Compaq Computer Corporation or SPARC® Station computer system available from SUN Microsystems Corporation, although a main frame computer system can also be used. Preferably, the communications channel 160 is a TCP/IP-based network such as the Internet or an intranet, although almost any well known LAN, WAN or VPN technology can be used.

In one preferred embodiment of the invention, the client system 110 is an IBM PC compatible system operating an operating system such as the Microsoft Windows® operating system, and server system 120 and server system 130 are configured as web servers providing access to information such as web pages in HTML format via a protocol such as the HyperText Transport Protocol (http). The client system 110 includes software to allow viewing of web pages, commonly referred to as a web browser, thus being capable of accessing web pages located on server system 120 and server system 130. Alternatively, client system 110 can be any wired or wireless device that can be connected to a communications network, such as an interactive television system, such as WEBTV, a personal digital assistant (PDA) or a cellular telephone. In this preferred embodiment, server system 120 is an e-tail server offering a plurality of items for sale over the Internet and server 130 is a promotional server that has a database including electronic coupon distribution/modification rules and promotional terms that define electronic coupons. Promotional server 130 also includes the software necessary to authenticate electronic coupons prior to their redemption. The items offered for sale by the e-tail server 120 can be products and/or services.

In one preferred embodiment, server system 130 includes web server software that is adapted to produce an electronic coupon or a book of electronic coupons that is transferred to the client system 110 in the form of an electronic coupon token, such as a cookie, that is stored in memory on the client system. Preferably, the electronic coupon is a data structure which can include any or all of the following information elements: data representative of an electronic coupon serial number or identification number; data representative of a unique key that can be used to validate or authenticate the coupon;

data representative of the vendor that authorized the coupon and will redeem the coupon; data representative of the nature of the discount or access provided by the coupon; and data representative of the server or entity that issued the coupon. In one preferred embodiment, the electronic coupon can be issued as part of an electronic coupon book. The coupon book can include data representative of a version number for the electronic coupon book and data representative of a serial number or identification number for the electronic coupon book.

In one preferred embodiment, the electronic coupon contains all the information necessary to redeem the coupon. Specifically, the electronic coupon identifies the grantor (i.e., the party or vendor that will redeem the electronic coupon), the nature of the discount or benefit provided and a unique serial number or other data structure that permits the electronic coupon to be authenticated or validated. Thus, a server redeeming this type of electronic coupon can obtain all the information necessary to redeem from the electronic coupon. The server can even include the software necessary to authenticate or validate the electronic coupon.

In an alternative embodiment, an electronic coupon book includes a unique serial number or identification number and data structure useful for authenticating or validating the electronic coupon book. The actual content of the electronic coupon book can be determined, for example, by visiting a website which reads the coupon book serial number and provides the user with listings of the coupons available. A benefit to this configuration is the organization that issues the electronic coupon book can add vendors even after the electronic coupon book has been issued. Thus, if a vendor signs up with the organization that issues electronic coupon books after a particular coupon book has been issued to a client, the vendor can be added to the electronic coupon book at a later date. In order to redeem this type of electronic coupon the server that intends to redeem the electronic coupon must connect to an authentication server which will authenticate or validate the coupon book and indicate the nature of the benefit of the electronic coupon to the server requesting authentication/validation. Another benefit of this configuration is that the coupons are relatively tamper-proof due to the authentication and validation facilities. In many prior art systems, coupons could be copied and/or altered by the user with relative ease;

in the absence of validation/authentication schemes, few reliable methods for detection of such counterfeits exist.

E-tail server system 120 includes software that is adapted to transmit an electronic purchase/redemption information token to the client system upon the consummation of a purchase transaction. In one embodiment, the electronic purchase/redemption information token contains information about the purchase transaction, including the items purchased and electronic coupons redeemed by the client system. Alternatively, upon the consummation of a purchase transaction, the e-tail server can store the purchase/redemption information in its own database or in the database of the promotion server system and the purchase/redemption information token contains a pointer that points the e-tail server system or the promotion server system, respectively, to the purchase/redemption information for a particular client system. Therefore, every time a client system consummates a purchase transaction and the e-tail server system transmits a purchase/redemption information token to the client system, a purchase/redemption history, made up of the purchase/redemption information of the client system, is developed.

According to the present invention, the distribution and/or modification of electronic coupons is determined by the application of electronic coupon distribution/modification rules that are applied to the purchase/redemption transaction information of the client system after the purchase transaction is consummated. The electronic coupon distribution/modification rules are used to determine whether, based on the client system's purchase/redemption history as defined by the purchase/redemption information, the client system will receive electronic coupons during the present purchase transaction and, if the client is to receive electronic coupons, which coupons will be received. The rules are conditional and can warrant the distribution and/or modification of electronic coupons based any criterion desired by the issuer of the electronic coupon. For example, the rules can be used to reward a first time or repeat client of an item with an electronic coupon for a different item or to limit the number of electronic coupons for a particular item given to a client. The following are examples of preferred electronic coupon distribution/modification rules:

- A. If the client system has redeemed Z number of coupons for Product X, the client system will receive an electronic coupon for Product Y.
- B. If the client system redeems an electronic coupon for Product X, the client system will receive an electronic coupon for Product Y.
- C. If the client system has redeemed an electronic coupon for Product X, the client system will not receive another electronic coupon for Product X.
- D. If the client system has purchased Product X a total of Z number of times, the client system will receive an electronic coupon for Product Y.
- E. If the client system has received an electronic coupon for Product X that is still valid but has not been redeemed, the client system will receive no more electronic coupons for Product X.
- F. If the client system has received an electronic coupon for Product X but has not yet redeemed it, the promotion server system will increase the value of the electronic coupon or generate an electronic coupon for a different item.
- G. If the client system has received an electronic coupon for Product X that has expired, the promotion server system will extend the valid date of the electronic coupon.
- H. If the client system has received an electronic coupon for Product X but has not redeemed it, the promotion server system can either transmit an electronic coupon for a competing product to the client system or modify the electronic coupon to be redeemable for a competing product.

The electronic coupon distribution/modification rules can be programmed into the promotional server through the e-tail server, thereby enabling the e-tail website to program its own, in-house, promotions. Additionally, the electronic coupon

distribution/modification rules can be programmed into the promotional server by one or more of the producers of the goods or providers of the services that are available for sale on the e-tail website associated with the e-tail server 120, thereby enabling the producers of the goods or providers of the services to promote particular goods or services.

FIG. 2 shows a flow diagram 200 of a method of distributing electronic coupons in accordance with one preferred embodiment of the invention. In primary step 202, the client system 110, FIG. 1, establishes at least one connection with one or more e-tail servers 120 and carries out purchase transactions, including purchasing items, redeeming electronic coupons and/or receiving electronic coupons from the e-tail servers. With each purchase transaction carried out by the client system with the e-tail server systems, each e-tail server system transmits an electronic purchase/redemption information token to the client, wherein the purchase/redemption information tokens contain information about the items purchased, the electronic coupons redeemed and/or the coupons received by the client system, step 204. These purchase/redemption information tokens are stored in memory on the client system and therefore represent a "history" of the purchase transactions carried out by the client system. The client system establishes a subsequent connection to a subsequent e-tail server system to initiate a purchase transaction, step 206, and consummates the purchase transaction by purchasing an item and transmitting payment information to the e-tail server system, step 208. The subsequent e-tail server system reads the purchase/redemption information tokens from the memory of the client system, step 210. The subsequent e-tail server system then provides access to the purchase/redemption information token information to the promotion server system 130, FIG. 1, step 212. In step 214, the promotion server system applies the coupon distribution rules to the information contained in the purchase/redemption information tokens. If, based on the rules applied to the purchase/redemption information, the distribution of electronic coupons is warranted, step 216, the electronic coupons prescribed by the rules are transmitted to the client system, step 218. If, in step 216, it is determined that no electronic coupons are to be distributed, step 218 is skipped. While the purchase transaction consummation step 208 is described as occurring before steps 210, 212, 214 and 216, it will be understood that the consummation of the purchase transaction can take place

after any of those steps as long as it occurs before step 218, when the promotion server transmits the electronic coupons to the client system.

The preceding embodiment is shown in greater detail in FIG. 3. First, the e-tail server system 110 provides the electronic coupon distribution rules 220 to the database 230 of the promotion server system. Additionally, a producer or supplier of items 250 can provide electronic coupon distribution rules 252 to the promotion server system 130. After carrying out one or more purchase transactions with e-tail server system 110 and/or other e-tail server systems, from which the client system has received purchase/redemption information tokens, a user operating client system 110 establishes a subsequent connection 254 to the e-tail server 120 over the communications network 160 for the purpose of initiating a subsequent purchase transaction. After the purchase transaction is consummated, the e-tail server system then reads the purchase/redemption information tokens 256 from the client system 110 and transmits the purchase/redemption information contained in, or pointed to by, the purchase/redemption information tokens 258 to the promotion server system 130. The promotion server system then applies the electronic coupon distribution rules to the purchase/redemption information. If the application of the electronic coupon distribution rules to the purchase/redemption information warrants the distribution of one or more electronic coupons to the client system, the promotion server system transmits the electronic coupons prescribed by the rules to the client system. The electronic coupon is preferably provided to the client system in the form of screen display data. As shown in Fig. 3, the electronic coupon can be provided from the promotional server 130 to the e-tail server 120 via connection 260 and then to the client 110 by the e-tail server 120 via connection 262. Alternatively, the electronic coupon can be transmitted directly to the client 110 by the promotional server 130 via connection 264. The electronic coupon is then stored in the memory of the client 110 for use in a later purchase transaction. As discussed above, the consummation of the purchase transaction can take place at any time, however, the transmission of the electronic coupons does not occur until after the purchase transaction is consummated.

As described above, the electronic coupons are distributed based on the application of the electronic coupon distribution rules to the purchase transaction information. For example, if the rule " If the client system has purchased

COLGATE® floss a total of 2 times, the client system will receive an electronic coupon for COLGATE® toothpaste" is applied to the purchase/redemption information and the information indicates that the client system has purchased COLGATE® floss a total of 2 times, the client system will receive an electronic coupon for COLGATE® toothpaste. However, if the rule "If the client system has redeemed an electronic coupon for COLGATE® toothpaste, the client system will not receive another electronic coupon for COLGATE® toothpaste" is also applied to the purchase/redemption information and the client system has indeed redeemed an electronic coupon for COLGATE® toothpaste, the client system will not receive another electronic coupon for COLGATE® toothpaste.

In an alternative embodiment, the distribution and/or modification of electronic coupons is based solely on the client's reception and redemption of electronic coupons, without regard to the items actually purchased by the client. When the client establishes a connection to an e-tail server system, either to conduct a purchase transaction or simply to "browse" the website associated with the e-tail server system, the e-tail server system presents a particular electronic coupon to the client in the form of a screen display. The e-tail server system then transmits an electronic identification token to the client system that enables the e-tail server system to identify the client as having viewed the particular electronic coupon. The promotion server system has access to this identification information and can track the electronic coupons that the client has viewed and/or previously received from the promotion server system. Accordingly, every time the client visits a website, the e-tail server system associated with the website recognizes the client by its identification token and tracks the electronic coupons viewed and/or received by the client. When the client conducts a purchase transaction on one of the e-tail server systems and redeems one or more of the electronic coupons, the redemption of the electronic coupons is attributed to the client. As the client visits e-tail server systems, views and/or receives electronic coupons and redeems electronic coupons, the information represented by the electronic identification token is updated and a purchase/redemption history of the client is developed, which is accessible by the promotion server system. In this embodiment, the purchase/redemption history can be stored on the client system, the e-tail server system or the promotion server system.

As discussed above, every time the client visits a website and views, receives and/or redeems an electronic coupon, the purchase/redemption history of the client is further developed. This purchase/redemption history information is available to the promotion server system, thereby allowing the promotion server system to distribute or modify electronic coupons based on the application of the electronic coupon distribution/modification rules to the purchase/redemption history of the client. For example, if the promotion server system, based on the client's purchase/redemption history, is aware that the client has viewed and/or received several electronic coupons for a particular item, but has never redeemed any of them, the promotion server system will no longer make coupons for that particular item available to that client.

Alternatively, if the client has redeemed an electronic coupon for a particular item, the promotional server system can either reward the client by transmitting an electronic coupon to the client for the same or a different item, or the promotional server can limit the distribution of electronic coupons by not providing any more electronic coupons for that item to the client. If, based on the client's purchase/redemption history information, the promotion server system determines that the client has received an electronic coupon for a particular item, but has not yet redeemed the coupon, the promotion server system can modify the value of the coupon in order to entice the client into redeeming the coupon. The promotion server system can also modify the valid dates of an expired electronic coupon. In this embodiment, any of the electronic coupon distribution/modification rules set forth above may be used to determine how the electronic coupons are modified by the promotion server system, and the electronic coupons are distributed/modified after the consummation of the purchase transaction, thus enabling the client to use the electronic coupons in a later purchase transaction.

Examples of the above embodiment include a client who has viewed and/or received several coupons for pet food, but has never redeemed such a coupon. Based on the assumption that the client is not a pet owner, or simply does not purchase pet food at e-tail server system websites, the promotion server system can be programmed to not transmit any more electronic coupons for pet food to that client. Alternatively, assuming that the client does not regularly purchase that particular brand, the promotion server system will transmit an electronic coupon for a different brand. The second example would be a case in which the purchase/redemption history of the client



indicated that the client had redeemed an electronic coupon for a pasta product. According to the invention and based on the particular electronic coupon distribution/modification rules in effect, the promotion server system could either transmit a coupon for an unrelated item or a related item, such as pasta sauce, to the client or could make electronic coupons for pasta products of a particular brand unavailable to that client for a particular period of time. The third example would be a case in which the client has viewed and/or received an electronic coupon for \$0.20 off of the purchase of a particular brand of cola. If, on the client's next visit to a grocer e-tail server system, the coupon has not yet been redeemed, the promotion server system can modify the value of the coupon to be \$0.30, in order to further entice the client into redeeming the coupon. Another example would be the case in which the client has received an electronic coupon for a PEPSI® product, but has not redeemed it, the promotion server system will either transmit an electronic coupon for a COCA-COLA® product, or modify the PEPSI® electronic coupon to be redeemable for the COCA-COLA® product.

Shown in FIG. 6 is a flow diagram 500 of the method of modifying an electronic coupon after the consummation of a purchase transaction. In primary step 502, the client system 110, FIG. 1, establishes at least one connection with one or more e-tail servers 120 and carries out purchase transactions, including purchasing items, redeeming electronic coupons, viewing and/or receiving electronic coupons from the e-tail servers. With each purchase transaction carried out by the client system with the e-tail server systems, each e-tail server system updates the electronic purchase/redemption information token of the client, wherein the purchase/redemption information token contains information identifying the client and information about the items purchased, the electronic coupons redeemed, viewed and/or received by the client system, step 504. The electronic token is stored in memory on the client system, the e-tail server system or the promotion server system and represents a "history" of the purchase transactions carried out by the client system. The client system establishes a subsequent connection to a subsequent e-tail server system to initiate a purchase transaction, step 506, and consummates the purchase transaction by purchasing an item and transmitting payment information to the e-tail server system, step 508. The subsequent e-tail server system reads the electronic token from the client system, step

510. The subsequent e-tail server system then provides access to the electronic token information to the promotion server system 130, FIG. 1, step 512. In step 514, the promotion server system applies coupon modification rules to the information contained in the electronic token. If, based on the rules applied to the electronic token information, the modification of electronic coupons is warranted, step 516, the electronic coupons are modified by the promotion server system, step 518. If, in step 516, it is determined that the electronic coupons are not to be modified, step 518 is skipped. While the purchase transaction consummation step 508 is described as occurring before steps 510, 512, 514 and 516, it will be understood that the consummation of the purchase transaction can take place after any of those steps as long as it occurs before step 518, when the promotion server modifies the electronic coupons. As described above, the modification of the electronic coupons can involve modifying the value of the electronic coupon, the purchasing requirements necessary for redeeming the electronic coupon, or the valid dates of the electronic coupon.

In a preferred embodiment of the invention, the client system 110 is a personal computer running browser software which connects to web servers via the Internet or a similar network. Preferably, a book of electronic coupons is transferred to the client system in the form of an electronic coupon token which is stored in memory at the client system. The electronic coupon token can be detected by any subsequent web server that client system connects to. If the client system attempts to initiate a transaction with a particular web server, the web server detects the electronic coupon token which includes electronic coupon and uses the electronic coupon to enable or modify the transaction. In this embodiment, when the client system receives the electronic coupon, the user can be alerted to the presence of the electronic coupon by another browser window or a Java based window that identifies all the electronic coupons in the electronic coupon book, the nature of the benefit provided and provides links to the various web sites where the electronic coupons can be redeemed.

Alternatively, the client system can connect to a web server which displays the contents of the electronic coupon book in the form of a web page which describes the nature of the electronic coupon benefit and a link to the web page where the electronic coupon can be redeemed. In yet another embodiment of the invention, when the client system receives the electronic coupon or coupon book, the client system may be programmed

to automatically provide the electronic coupon or coupon book to a peripheral printing device such that the user has automatic access to hard-copy versions of the coupons.

As one having ordinary skill in the art will appreciate, the client system will typically be operated or otherwise controlled by a consumer or a customer (in business to business transactions) and the server system or systems will be operated or otherwise controlled by an organization or an agent of an organization authorized to enter into and complete the transaction. One of ordinary skill in the art will also appreciate that the electronic coupons can include an expiration date or a window of dates when the electronic coupon is valid or effective.

In another embodiment of the invention, electronic coupon tokens are transferred to, or retrieved from, a client system by a frame spawned within a primary website by JavaScript or other similar software code. This embodiment is compatible with security features included with some web browsers that limit a website to depositing and retrieving electronic coupon tokens only for itself. For example, a user visiting an e-tail server system website generally receives an electronic coupon token from that site, but a user cannot receive an electronic coupon token from a site on behalf of another site. This is because an electronic coupon token deposited by a particular website is encoded with a signature corresponding to that website, and the browser utilizes that signature to limit electronic coupon token transfers to only the website that created the electronic coupon token. However, a frame spawned within the e-tail server system website can deposit an electronic coupon token on the client system, and a similar frame spawned within another website can subsequently read that electronic coupon token, as long as the frames spawned on different websites look the same (i.e., have the same signature) to the browser running on the client system. As with the other embodiments described herein, the electronic coupon token may contain all of the necessary the coupon information, including the complete coupon data structure necessary for benefits identification, validation and authentication, or the electronic coupon token may contain only data identifying the client, so that the electronic coupon token functions as a pointer to a database on the promotional server. If the electronic coupon token contains the complete data structure, the script will include the code necessary to authenticate and validate the coupon. The utility of this embodiment lies in the fact that the issuer and the redeemer of the coupon need not be

the same entity. For example, a producer of goods may desire to have coupons distributed to potential purchasers, but may not desire to conduct the electronic commerce necessary to redeem the coupons. In this case, the producer of goods would distribute the JavaScript (or other similar script) for generating coupon-distributing website frames to highly trafficked websites. The producer of goods would also provide the frame-generating script to point-of-sale product retailers so that the coupons could be redeemed where the product is sold.

While the invention has been described as including one e-tail server system that accesses a promotional server system, a plurality of e-tail server systems may be coupled to the promotional server system in order to distribute electronic coupons to clients of the e-tail server systems. Such a configuration is illustrated in Fig. 4. In this system 300, in addition to the e-tail server system 120, a second e-tail server system 140 is coupleable to the promotional server system 130 over communications network 160 in the manner described above. Accordingly, the client 110 can access either e-tail server system 120 or e-tail server system 140 for the purpose of carrying out a purchase transaction over the communications network 160 and either or both of the e-tail server systems can access the promotional server system 130. In this embodiment, the client system 110 can be primarily connected to the e-tail server system 120, which transmits the electronic purchase/redemption information token to the client system 110, and subsequently connected to the e-tail server system 140, which reads the electronic purchase/redemption information token and provides access to the purchase/redemption information to the promotional server system 130. It will be understood that the promotional server can be accessed through any number of e-tail server systems.

In another embodiment, the electronic coupon distribution/modification rules are stored in a database server system on the e-tail server system rather than on a separate promotion server system. Such a configuration is shown at 400 in FIG. 5. In this embodiment, e-tail server system 150 is coupleable to client 110 over communications network 160. E-tail server system 150 includes a database server system 152 which includes the electronic coupon distribution/modification rules and the promotional data defining electronic coupons.

In this embodiment, the e-tail server system 150 applies the electronic coupon distribution/modification rules to the purchase/redemption information locally within

database server system 152. The client system 110 establishes a connection with e-tail server system 150 over the communications network 160 for the purpose of initiating a purchase transaction. After the e-tail server system reads the purchase/redemption information from client system 110, it applies the electronic coupon distribution/modification rules and, after the consummation of the purchase transaction, distributes and/or modifies electronic coupons to the client system according to the distribution/modification rules.

Accordingly, the present invention provides a system for distributing and/or modifying electronic coupons over a network after the consummation of a purchase transaction. The electronic coupons distributed and/or modified depend upon the client's purchasing/redemption history. Every time the client system consummates a purchase transaction with an e-tail server system, the e-tail server system transfers and/or updates electronic purchase/redemption information token containing information about the purchase transaction. When the client system establishes a connection with an e-tail server system, the e-tail server system reads the purchase/redemption information and provides access to it to the promotion server system. The promotion server system applies electronic coupon distribution/modification rules to the information and determines whether electronic coupons are to be distributed and/or modified to the client system based on the application of the rules to the purchase/redemption information.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiments are therefore to be considered in respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of the equivalency of the claims are therefore intended to be embraced therein.

## CLAIMS

1. A system for distributing electronic coupons over a communications network comprising:

an e-tail server system having a computer processor and associated memory, said e-tail server system including items for sale;

a promotion server system having a computer processor and associated memory, said promotion server system including a database containing electronic coupon distribution rules and promotional data that defines electronic coupons; and

a client system having a computer processor and associated memory, said client system being selectively coupleable to said e-tail server system over said communications network to initiate a purchase transaction and including at least one electronic token representative of purchase/redemption information, said electronic token being transmitted thereto by said e-tail server system;

said e-tail server system being adapted for reading said electronic token from said client system and providing, to said promotion server system, access to said purchase/redemption information; and

said promotion server system being adapted for applying said electronic coupon distribution rules to said purchase/redemption information and distributing electronic coupons to said client system based on said application of said electronic coupon distribution rules to said purchase/redemption information.

2. The system of claim 1, wherein said communications network is the internet.

3. The system of claim 2, wherein said purchase/redemption information includes one or more of information about items purchased by the client system and information about electronic coupons redeemed by the client system.

4. The system of claim 3, wherein said electronic coupon distribution rules are conditional rules that authorize the distribution of said electronic coupons based on said purchase/redemption information.

5. The system of claim 2, wherein said purchase/redemption information is stored in said memory of said client system.

6. The system of claim 2, wherein said purchase/redemption information is stored on said e-tail server system, and said electronic token points said e-tail server system to said purchase/redemption information thereon.

7. The system of claim 2, wherein said purchase/redemption information is stored on said promotion server system, and said electronic token points said promotion server system to said purchase/redemption information thereon.

8. The system of claim 2, wherein said electronic coupons are provided to said client system in the form of screen display data that is transmitted to said client system directly from said promotion server system over said communications network.

9. The system of claim 2 wherein said electronic coupons are provided to said client system in the form of screen display data that is transmitted from said promotional server system to said e-tail server system over said communications network, and from said e-tail server system to said client system over said communications network.

10. The system of claim 2 wherein said client system is connected to said network by a wired connection.

11. The system claim 10 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

12. The system of claim 2 wherein said client system is connected to said network by a wireless connection.

13. The system of claim 12 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

14. The system of claim 2 wherein said promotion server system is included in said e-tail server system.

15. The system of claim 2 wherein said promotion server system distributes said electronic coupons after said client system consummates said purchase/redemption transaction.

16. A method of distributing electronic coupons over a communications network comprising the steps of:

A. establishing a connection between a client system and an e-tail server system to initiate a purchase transaction, said client system including at least one electronic token representative of purchase/redemption information, said electronic token being transmitted thereto by said e-tail server system;

B. said e-tail server system reading said at least one electronic token from said client system;

C. said e-tail server system providing, to a promotion server system, access to said purchase/redemption transaction information represented by said at least one electronic token, said promotion server system including a database containing electronic coupon distribution rules and promotional data that defines electronic coupons;

D. said promotion server system applying said electronic coupon distribution rules to said purchase/redemption information; and

E. said promotion server system distributing electronic coupons to said client system based on said application of said electronic coupon distribution rules to said purchase/redemption information.

17. The method of claim 16, wherein said communications network is the internet.



18. The method of claim 17 wherein said purchase/redemption information includes one or more of information about items purchased by the client system and information about electronic coupons redeemed by the client system.

19. The method of claim 18, wherein said electronic coupon distribution rules are conditional rules that authorize the distribution of said electronic coupons based on said purchase/redemption information.

20. The method of claim 17, wherein said electronic coupons are provided to said client system in the form of screen display data that is transmitted to said client system directly from said promotional server system over said communications network.

21. The method of claim 17, wherein said electronic coupons are provided to said client system in the form of screen display data that is transmitted from said promotional server system to said e-tail server system over said communications network, and from said e-tail server system to said client system over said communications network.

22. The method of claim 17 wherein said client system is connected to said network by a wired connection.

23. The method of claim 22 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

24. The method of claim 17 wherein said client system is connected to said network by a wireless connection.

25. The method of claim 24 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

26. The method of claim 17 wherein, prior to step E, said client system consummates said purchase/redemption transaction.

27. A system for distributing electronic coupons over a communications network comprising:

- a first e-tail server system having a computer processor and associated memory, said first e-tail server system including items for sale;

- a promotion server system having a computer processor and associated memory, said promotion server system including a database containing electronic coupon distribution rules and promotional data that defines electronic coupons; and

- a client system having a computer processor and associated memory, said client system being selectively coupleable to said first e-tail server system over said communications network to initiate a purchase transaction and including at least one electronic token representative of purchase/redemption information, said electronic token being transmitted thereto by a second e-tail server system;

- said first e-tail server system being adapted for reading said electronic token from said client system and providing, to said promotion server system, access to said purchase/redemption information; and

- said promotion server system being adapted for applying said electronic coupon distribution rules to said purchase/redemption information and distributing electronic coupons to said client system based on said application of said electronic coupon distribution rules to said purchase/redemption information.

28. The system of claim 27, wherein said communications network is the internet.

29. The system of claim 28, wherein said purchase/redemption information includes one or more of information about items purchased by the client system and information about electronic coupons redeemed by the client system.

30. The system of claim 28, wherein said electronic coupon distribution rules are conditional rules that authorize the distribution of said electronic coupons based on said purchase/redemption information.

31. The system of claim 28, wherein said purchase/redemption information is stored in said memory of said client system.

32. The system of claim 28, wherein said purchase/redemption information is stored on said e-tail server system, and said electronic token points said e-tail server system to said purchase/redemption transaction information thereon.

33. The system of claim 28, wherein said purchase/redemption information is stored on said promotion server system, and said electronic token points said promotion server system to said purchase/redemption transaction information thereon.

34. The system of claim 28, wherein said electronic coupons are provided to said client system in the form of screen display data that is transmitted to said client system directly from said promotion server system over said communications network.

35. The system of claim 28 wherein said electronic coupons are provided to said client system in the form of screen display data that is transmitted from said promotional server system to said e-tail server system over said communications network, and from said e-tail server system to said client system over said communications network.

36. The system of claim 28 wherein said client system is connected to said network by a wired connection.

37. The system claim 36 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

38. The system of claim 28 wherein said client system is connected to said network by a wireless connection.

39. The system of claim 38 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

40. The system of claim 28 wherein said promotion server system is included in said e-tail server system.

41. The system of claim 28 wherein said promotion server system distributes said electronic coupons to said client system after said purchase transaction is consummated.

42. A system for modifying electronic coupons over a communications network comprising:

an e-tail server system having a computer processor and associated memory, said e-tail server system including items for sale;

a promotion server system having a computer processor and associated memory, said promotion server system including a database containing electronic coupon modification rules and promotional data that defines electronic coupons; and

a client system having a computer processor and associated memory, said client system being selectively coupleable to said e-tail server system over said communications network to initiate a purchase transaction and including at least one electronic coupon and at least one electronic token representative of purchase/redemption information, said electronic token being transmitted thereto by said e-tail server system;

said e-tail server system being adapted for reading said electronic token from said client system and providing, to said promotion server system, access to said purchase/redemption information; and

said promotion server system being adapted for applying said electronic coupon modification rules to said purchase/redemption information and modifying said at least one electronic coupon on said client system based on said application of said electronic coupon modification rules to said purchase/redemption information.

43. The system of claim 42, wherein said communications network is the internet.

44. The system of claim 43, wherein said purchase/redemption information includes one or more of information about items purchased by the client system and information about electronic coupons redeemed by the client system.

45. The system of claim 43, wherein said electronic coupon modification rules are conditional rules that authorize the modification of said electronic coupons based on said purchase/redemption information.

46. The system of claim 43, wherein said purchase/redemption transaction information is stored in said memory of said client system.

47. The system of claim 43, wherein said purchase/redemption information is stored on said e-tail server system, and said electronic token points said e-tail server system to said purchase/redemption information thereon.

48. The system of claim 43, wherein said purchase/redemption information is stored on said promotion server system, and said electronic token points said promotion server system to said purchase/redemption information thereon.

49. The system of claim 43, wherein said client system is connected to said network by a wired connection.

50. The system of claim 43 wherein said client system is connected to said network by a wireless connection.

51. The system of claim 43 wherein said promotion server system is included in said e-tail server system.

52. The system of claim 43 wherein said promotion server system modifies said electronic coupons after said client system consummates said purchase transaction.

## AMENDED CLAIMS

[received in the International Bureau on 30 November 2001 (30.11.01);  
new claims 53-93 added (7 pages)]

53. A method of distributing an electronic coupon over a communications network, the method comprising the steps of:

A. establishing a connection over said communications network between a client system and an e-tail server system, said e-tail server system including items for sale, said items for sale being classified into at least one of a plurality of item categories;

B. said client system consummating a purchase transaction by purchasing an item from said e-tail server system, said purchased item being classified in a particular item category;

C. said e-tail server transmitting information about said purchased item to a promotion server system; and

D. said promotion server system transmitting said electronic coupon to said client system, said electronic coupon being redeemable for a secondary item that is classified in said particular item category.

54. The method of distributing electronic coupons over a communications network according to claim 53 wherein said communications network is the Internet.

55. The method of distributing electronic coupons over a communications network according to claim 54, wherein, prior to step D, said promotion server system searches a database of promotional items within said particular item category to determine if said purchased item is a promotional item.

56. The method of distributing electronic coupons over a communications network according to claim 55, wherein, prior to step D and after searching said database, said promotion server generates said electronic coupon for said secondary item based on promotional data linked to said promotional item.

57. The method of distributing electronic coupons over a communications network according to claim 54 wherein said client system initiates a subsequent purchase transaction during a subsequent connection and redeems said electronic coupon upon consummating a subsequent purchase transaction in which said promotional item is purchased.

58. The method of distributing electronic coupons over a communications network according to claim 54 wherein said electronic coupon is provided to said client system in the form of screen display data that is transmitted to said client system directly from said promotion server system over said communications network.

59. The method of distributing electronic coupons over a communications network according to claim 54 wherein said electronic coupon is provided to said client system in the form of screen display data that is transmitted from said promotion server system to said e-tail server system over said communications network, and from said e-tail server system to said client system over said communications network.

60. The method of distributing electronic coupons over a network in accordance with claim 54 wherein said client system is connected to said network by a wired connection.

61. The method of distributing electronic coupons over a network in accordance with claim 60 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

62. The method of distributing electronic coupons over a network in accordance with claim 54 wherein said client system is connected to said network by a wireless connection.

63. The method of distributing electronic coupons over a network in accordance with claim 62 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

64. A system for distributing electronic coupons over a communications network comprising:

an e-tail server system having a computer processor and associated memory, said e-tail server system including items for sale;

a promotion server system having a computer processor and associated memory, said promotion server system including a database of promotional items linked to promotional data



that define electronic coupons; and

a client system having a computer processor and associated memory, said client system being selectively coupleable to said e-tail server system over said communications network;

wherein said client system establishes a connection to said e-tail server system to conduct a purchase transaction in which said client system purchases an item from said e-tail server system;

said e-tail server system transmits information about said purchased item to said promotion server system; and

said promotion server system transmits an electronic coupon to said client system, said electronic coupon being redeemable for an item that is related to said purchased item.

65. The system for distributing electronic coupons over a communications network according to claim 64 wherein said communications network is the Internet.

66. The system for distributing electronic coupons over a communications network according to claim 65 wherein said promotion server system further includes a searching device for searching said database to determine if said purchased item is a promotional item in said item category and electronic coupon generating means for generating said electronic coupon based on said promotional data linked to said promotional item.

67. The system for distributing electronic coupons over a communications network according to claim 65 wherein said client system initiates a subsequent purchase transaction by selecting said related item and redeems said electronic coupon upon consummating said subsequent purchase transaction.

68. The system for distributing electronic coupons over a communications network according to claim 65 wherein said electronic coupon is provided to said client system in the form of screen display data that is transmitted to said client system directly from said promotion server system over said communications network.

69. The system for distributing electronic coupons over a communications network

according to claim 65 wherein said electronic coupon is provided to said client system in the form of screen display data that is transmitted from said promotion server system to said e-tail server system over said communications network, and from said e-tail server system to said client system over said communications network.

70. The system of distributing electronic coupons over a network in accordance with claim 65 wherein said client system is connected to said network by a wired connection.

71. The system of distributing electronic coupons over a network in accordance with claim 70 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

72. The system of distributing electronic coupons over a network in accordance with claim 65 wherein said client system is connected to said network by a wireless connection.

73. The system of distributing electronic coupons over a network in accordance with claim 72 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

74. The system of distributing electronic coupons over a network in accordance with claim 65 wherein said promotion server system is included in said e-tail server system.

75. A system for distributing electronic coupons over a communications network comprising:

an e-tail server system having a computer processor and associated memory, said e-tail server system including items for sale;

a promotion server system having a computer processor and associated memory, said promotion server system including a database of promotional items linked to promotional data that define electronic coupons; and

a client system having a computer processor and associated memory, said client system being selectively coupleable to said e-tail server system over said communications network;

wherein said client system establishes a connection to said e-tail server system to conduct a purchase transaction in which said client system purchases an item from said e-tail server system, said purchased item being classified in an item category; and

said e-tail server system transmits category information about said purchased item to said promotion server system;

said promotion server system including a searching device for searching said database to determine if said purchased item is a promotional item in said item category and electronic coupon generating means for generating said electronic coupon based on said promotional data linked to said promotional item and providing, to said client system, said electronic coupon for a secondary item in said product category.

76. The system for distributing electronic coupons over a communications network according to claim 75 wherein said communications network is the Internet.

77. The system for distributing electronic coupons over a communications network according to claim 76 wherein said electronic coupon is provided to said client system in the form of screen display data that is transmitted to said client system directly from said promotion server system over said communications network.

78. The system for distributing electronic coupons over a communications network according to claim 76 wherein said electronic coupon is provided to said client system in the form of screen display data that is transmitted from said promotion server system to said e-tail server system over said communications network, and from said e-tail server system to said client system over said communications network.

79. The system of distributing electronic coupons over a network in accordance with claim 76 wherein said client system is connected to said network by a wired connection.

80. The system of distributing electronic coupons over a network in accordance with claim 79 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

81. The system of distributing electronic coupons over a network in accordance with claim 76 wherein said client system is connected to said network by a wireless connection.

82. The system of distributing electronic coupons over a network in accordance with claim 81 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

83. The system of distributing electronic coupons over a network in accordance with claim 76 wherein said promotion server system is included in said e-tail server system.

84. A method of distributing electronic coupons over a communications network, the method comprising the steps of:

A. establishing a connection over said network between a client system and an e-tail server system, said e-tail server system including items for sale;

B. said client system consummating a purchase transaction by purchasing an item from said e-tail server system;

C. said e-tail server system transmitting information about said purchased item to a promotion server system; and

D. said promotion server system transmitting an electronic coupon to said client system, said electronic coupon being redeemable for a secondary item that is related to said purchased item.

85. The method of distributing electronic coupons over a communications network according to claim 84 wherein said communications network is the Internet.

86. The method of distributing electronic coupons over a communications network according to claim 85, wherein, prior to step D, said promotion server system searches a database of promotional items to determine if said purchased item is a promotional item.

87. The method of distributing electronic coupons over a communications network according to claim 86, wherein, prior to step D and after searching said database, said promotion

server generates said electronic coupon for said secondary item based on promotional data linked to said promotional item.

88. The method of distributing electronic coupons over a communications network according to claim 85 wherein said electronic coupon is provided to said client system in the form of screen display data that is transmitted to said client system directly from said promotion server system over said communications network.

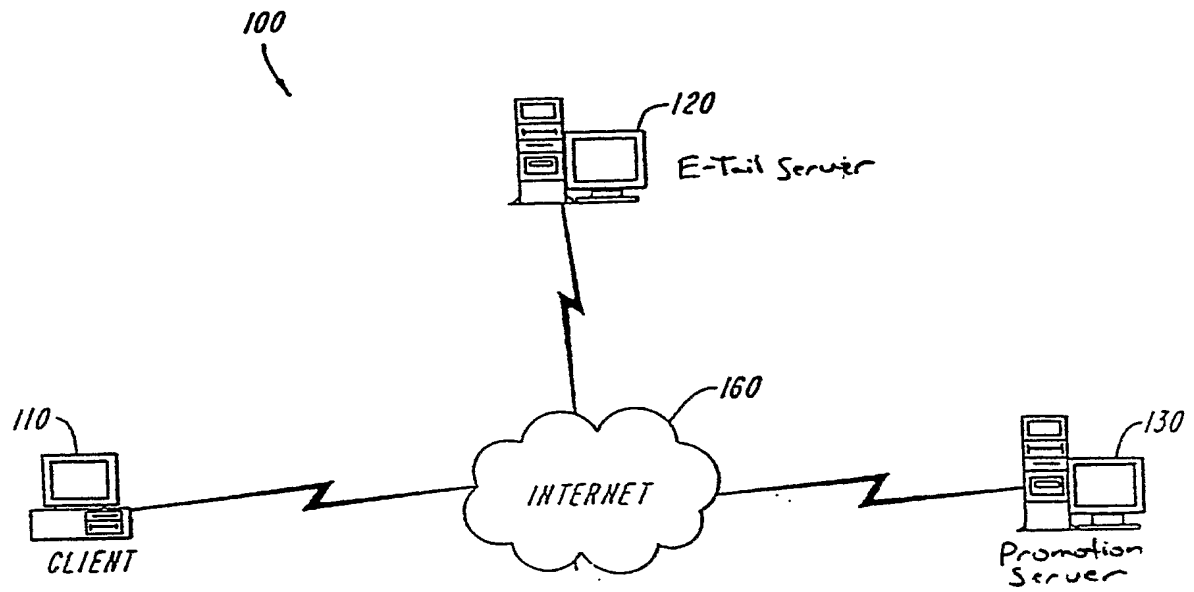
89. The method of distributing electronic coupons over a communications network according to claim 85 wherein said electronic coupon is provided to said client system in the form of screen display data that is transmitted from said promotion server system to said e-tail server system over said communications network, and from said e-tail server system to said client system over said communications network.

90. The method of distributing electronic coupons over a network in accordance with claim 85 wherein said client system is connected to said network by a wired connection.

91. The method of distributing electronic coupons over a network in accordance with claim 90 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.

92. The method of distributing electronic coupons over a network in accordance with claim 85 wherein said client system is connected to said network by a wireless connection.

93. The method of distributing electronic coupons over a network in accordance with claim 92 wherein said client system is selected from the group consisting of a personal computer, an interactive television system, a personal digital assistant and a cellular telephone.



*FIG. 1*

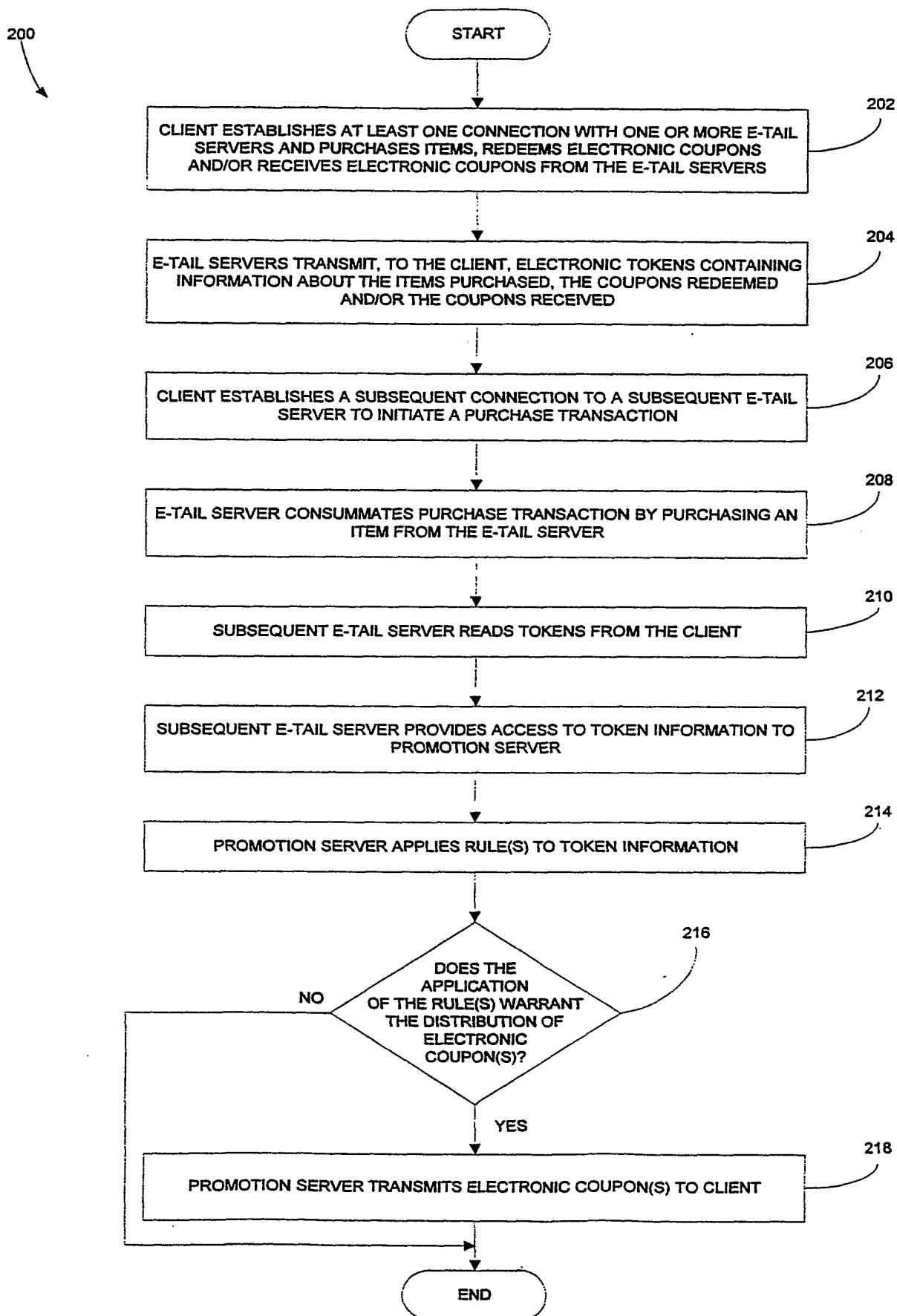


FIG. 2

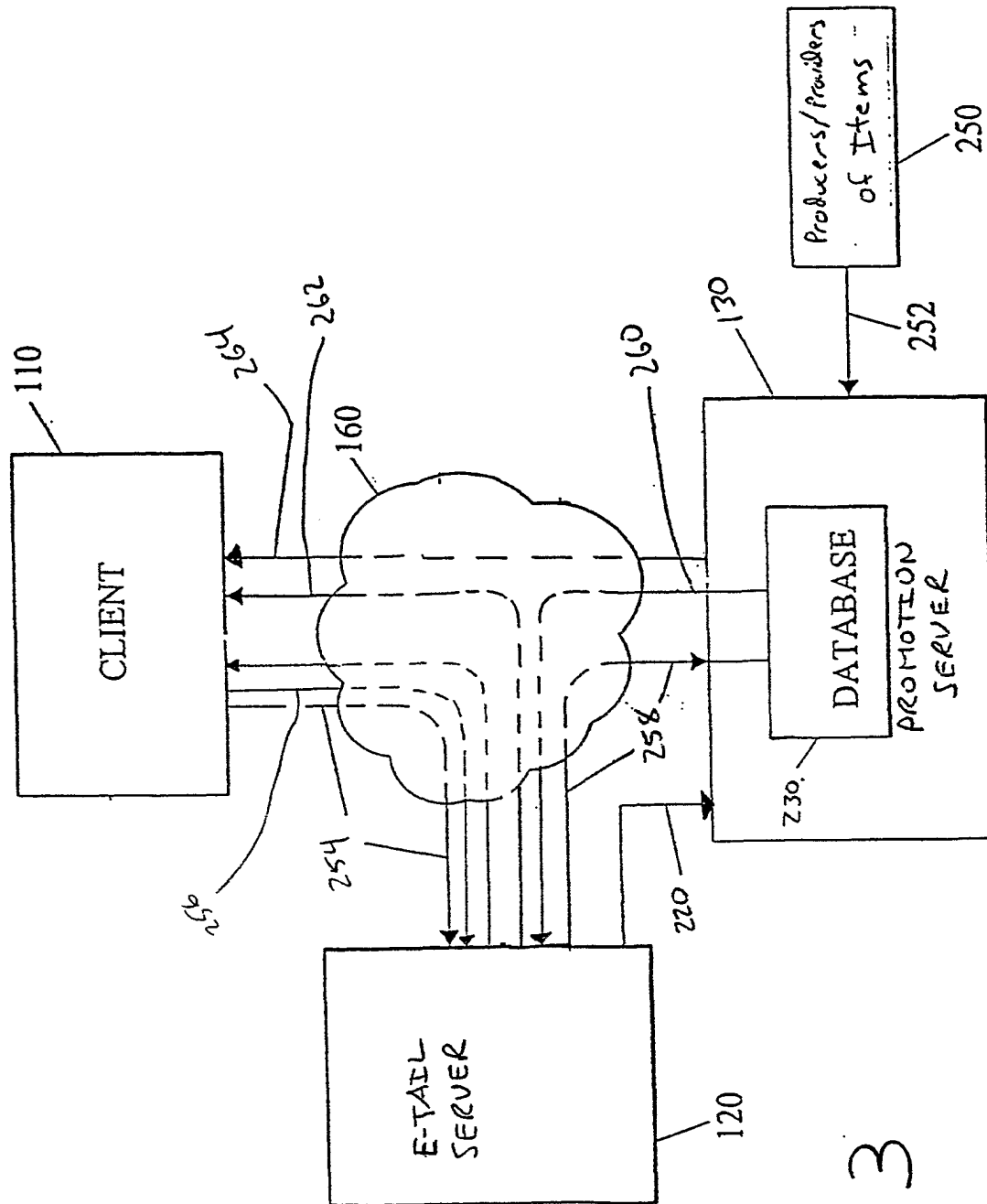
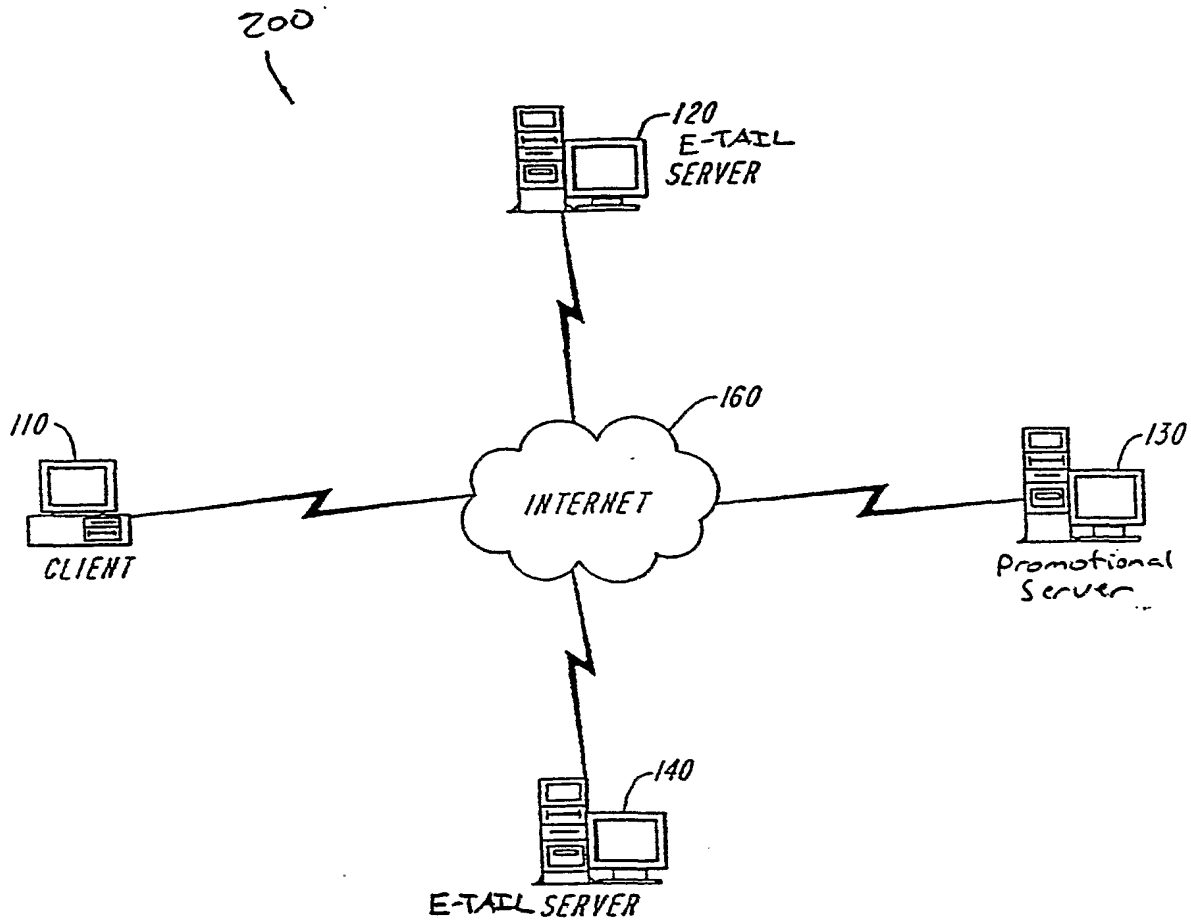
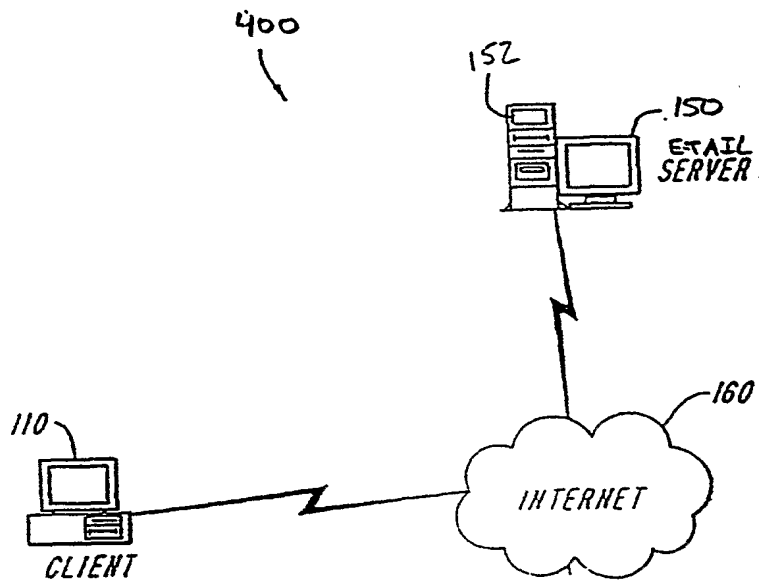


FIG. 3



*FIG. 4*

*FIG. 5*

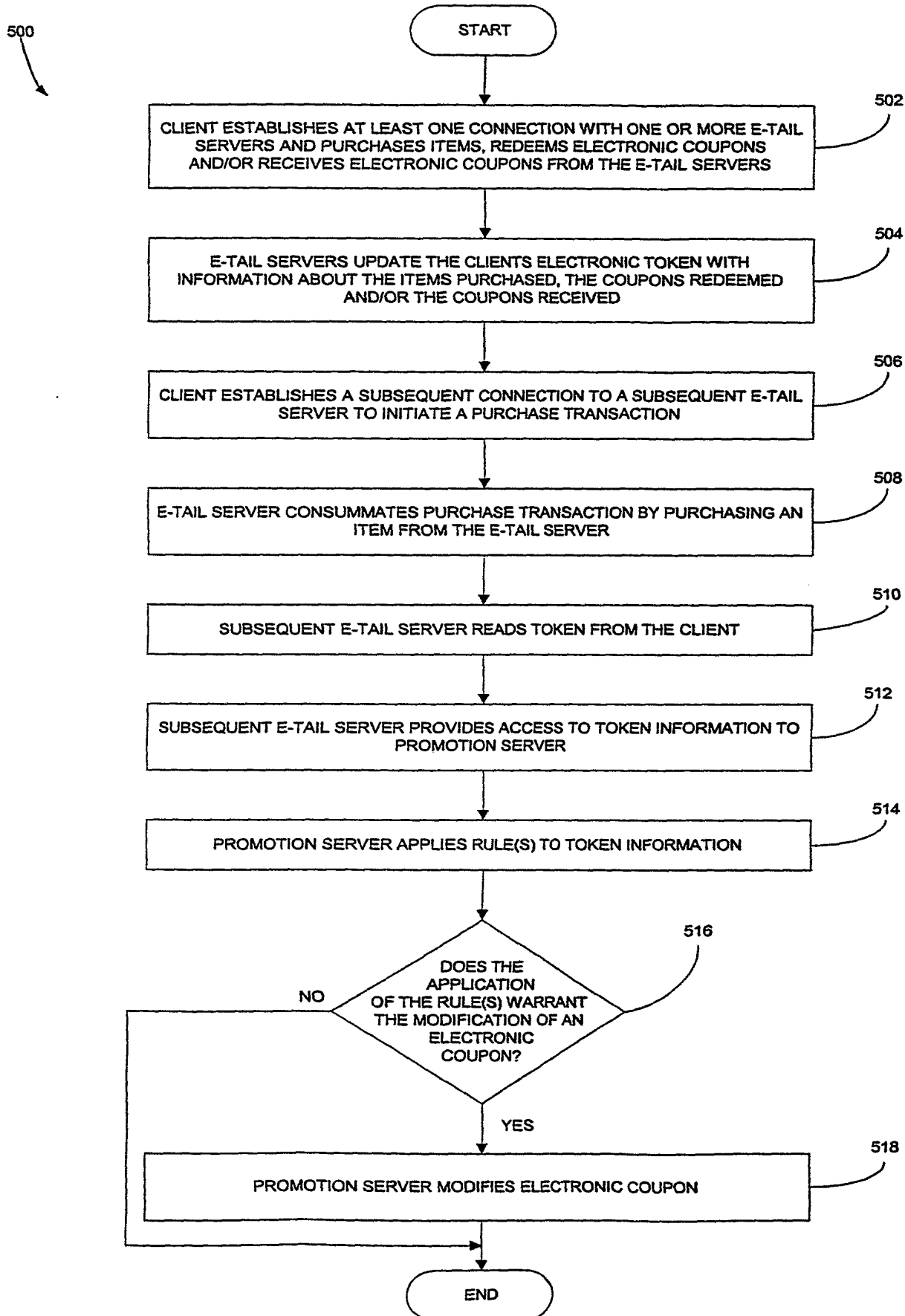


FIG. 6

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US01/19109

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/60

US CL : 705/10, 14, 26, 27

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/10, 14, 26, 27

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

STN,EAST

coupons,promotions,discounts,incentives,network,Internet,redemption

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,909,023 A (ONO et al) 01 June 1999, entire document.	1-52
A	US 5,845,259 A (WEST et al) 01 December 1998, entire document.	1-52
A	US 6,041,309 A (LAOR) 21 March 2000, entire document.	1-52
A,P	US 6,230,199 B1 (REVASHETTI et al) 8 May 2001, entire document.	1-52
A,P	US 6,237,145 B1 (NARASIMHAN et al) 22 May 2001, entire document.	1-52
A,P	US 6,266,649 B1 (LINDEN et al) 24 July 2001, entire document.	1-52

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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Date of the actual completion of the international search

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US01/19109

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,P	US 6,272,472 B1 (DANNEELS et al) 07 August 2001, entire document.	1-52